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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/752,607	12/27/2000	William Williams	CSCO-96941	1311

7590	11/25/2005

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EXAMINER
NGUYEN, CINDY

ART UNIT	PAPER NUMBER
2161	

DATE MAILED: 11/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	**Applicant(s)**
Office Action Summary	09/752,607	WILLIAMS, WILLIAM
	Examiner	**Art Unit**	
	Cindy Nguyen	2171	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>23 August 2005</u> .

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
     closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1,3-14,16-20 and 22-24</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1, 3-14, 16-20, 22-24</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>27 December 2000</u> is/are: a)☐ accepted or b)☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☒ The proposed drawing correction filed on <u>10 February 2003</u> is: a)☒ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____ .

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
         application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)	4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) ☐ Notice of Informal Patent Application (PTO-152)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .	6) ☐ Other: .

DETAILED ACTION

This is in response to amendment filed 08/23/05.

Response to Arguments

Applicant's arguments have been fully considered but they are not persuasive.

Applicant argued (page 12-15) that Schutzman does not teach or suggest a method of archiving a database including "transmitting a plurality of asynchronous streams to a backup database wherein a first asynchronous stream of said plurality of asynchronous streams is transmitted asynchronously with respect to a second asynchronous stream of said plurality of asynchronous streams". In response, Schutzman clearly discloses the recited as claimed as concurrently backing-up different data portion (data streams) of the same file at the same time the amount of time required to backup the entire file is considerably reduced see col. 11, lines 40-50, and each data portion 120-1 through 120-3 was independently backup as a separate backup work item into the storage system 112.

In response to applicant's argument (page 15-19) that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case,

Schutzman clearly discloses transmitting a plurality of asynchronous streams to a

backup database col. 11, lines 40-50.

Applicant argued (page 19-21) that the combination of Ohran and britton does

not teach a method of performing automatic recoveries on an archived database by a

program automatically in the background without requiring initiation and that is run

independent of a complete system backup as claimed. In response, Britton clearly

disclose these limitations as automatic resynchronization (recovery) that each sync   .

point manager and participant have valid sync point logs and resynchronization must be

the same logs that wee used during sync point, the resynchronization can proceed to

recover the failed sync point, knowing that no participant has a log reinitialization,

without this procedure, invalid sync point log information could lead to a failure in or

erroneous results from the recovery processing see col. 37, lines 63 to col. 38, lines 12,

Britton. In response to applicant's argument that there is no suggestion to combine the

references, the examiner recognizes that obviousness can only be established by

combining or modifying the teachings of the prior art to produce the claimed invention

where there is some teaching, suggestion, or motivation to do so found either in the

references themselves or in the knowledge generally available to one of ordinary skill in

the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re*

Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

1.   *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2.   Claims 1, 3, 7, 12-14, 16 and 20, 22 rejected under 35 U.S.C. 103(a) as being

unpatentable over Schutzman et al. (US 6505216) (Schutzman) in view of Britton

et al. (US 5613060) (Britton).

Regarding claims 1, 12, 14 and 20, Schutzman discloses: a system and method and a

compute-

readable medium and an apparatus of archiving a database, comprising:

storing a plurality of archive logs[1] comprising a plurality of transactions on an

operational database (112, fig. 1 and col. 11, lines 25-35, Schutzman);

transmitting a plurality of asynchronous streams to a backup database[2] (col. 11, lines 25-

35, Schutzman), wherein the asynchronous streams correspond to a plurality of the archive logs

(col. 10, lines 53-63, Schutzman);

wherein each asynchronous stream of the plurality of asynchronous streams corresponds

to a particular archive log of the plurality of archive logs (one stream for data portion, col. 11,

lines 26-34, Schutzman), and wherein the plurality of asynchronous streams are transmitted

simultaneously (col. 11, lines 26-50, Schutzman);

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[1] Examiner interpreted the data portions as archive logs.
[2] The system concurrent transfer of the different data portions in to the backup storage device.

However, Schutzman didn't disclose: Wherein a first asynchronous stream of said plurality of asynchronous streams is transmitted asynchronous with respect to a second asynchronous stream of said plurality of asynchronous streams, and updating the backup database with the plurality of transactions. On the other hand, Britton discloses: Wherein a first asynchronous stream of said plurality of asynchronous streams is transmitted asynchronous with respect to a second asynchronous stream of said plurality of asynchronous streams, and updating the backup database with the plurality of transactions (col. 3, lines 65 to col. 4, lines 14 and col. 52, lines 22-32, Britton) and updating the backup database with the plurality of transactions (col. 54, lines 43-53, Britton). Thus, at the time invention was made, it would have been obvious to a person of ordinary skill in the art to include the steps the first and second asynchronous stream are transmitted at a first and second transmission rate and updating the backup database in the system of Schutzman as taught by Britton. The motivation being to enable the system provide a process for resynchronizing a commit procedure for protected resources and conversations while avoiding extensive delays in the operation of an application program that initiated the commit procedure.

In addition, Schutzman/Britton discloses: a memory for storing instructions on how data is to be transferred from the operational database to the backup database (col. 13, lines 15-20, Schutzman).

Regarding claim 4, all the limitations of this claim have been noted in the rejection of claim 1. in addition, Schutzman/Britton discloses: further comprising the step of transmitting a predetermined number of streams in parallel, wherein the number is set by a user in a config file (col. 15, lines 33-48, Schutzman).

Regarding claim 6, all the limitations of this claim have been noted in the rejection of claim 1. In addition, Schutzman/Britton disclose: further comprising the step of running streaming rsynchs for copying data from the operational database to the backup database (col. 11, lines 26-50, , Schutzman).

Regarding claim 7, all the limitations of this claim have been noted in the rejection of claim 1. In addition, Schutzman/Britton discloses: further comprising the step of constructing an array of the plurality of archive logs which are to be transferred from the operational database to the backup database (col. col. 11, lines 53-63, Schutzman).

Regarding claims 3, 13,16 and 22, all the limitations of these claims have been noted in the rejection of claims 1, 12, 14 and 21, respectively. In addition, Schutzman/Britton didn't disclose: further comprising the steps of: comparing a plurality of files corresponding to the backup database to a plurality of files of the operational database to determine whether there are any corrupt or missing files (col. 60, lines 10-43, Britton).

In addition, Schutzman/Britton /Beardsley discloses: automatically transferring files from the operational database to the backup database which have been corrupted or deleted (col. 51, 49-55, Britton)

3.   **Claims 8-10, 11, 17-19, 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohran (U.S 6085298) in view of Britton et al. (US 5613060) (Britton).**

Regarding claims 8, 17 and 23, Ohran discloses: A method and an apparatus of performing automatic recoveries on an archived database, comprising the steps of:

comparing files residing on An operational database to files residing on a backup

database (col. 29, lines 26-40, Ohran);

determining whether there are any missing files by checking for files which exist on the operational database and which do not exist on the backup database (col. 30, lines 15-38, Ohran);

recopying files from the operational database over to the backup database which are missing (col. 30, lines 30-35, Ohran).

determining whether there are any corrupted files by checking for files which have a different size on the operational database as compared to corresponding file residing on the backup device (col. 30, lines 30-35, Ohran);

recopying files from the operational database to the backup database which have become corrupted (col. 30, lines 30-35, Ohran);

However, Ohran didn't disclose: wherein the automatic recovery process is run by a program automatically in the background without requiring initiation and is run independent of a complete system backup. On the other hand, Britton discloses: wherein the automatic recovery process is run by a program automatically in the background without requiring initiation and is run independent of a complete system backup (col. 49, lines 50-62 and col. 52, lines 22-52, Britton). Thus, at the time invention was made, it would have been obvious to a person of ordinary skill in the art to include automatic recovery process is run by a program automatically in the background without requiring initiation in the system of Ohran as taught by Britton. The motivation being to enable the system provide a process for resynchronizing a commit procedure for protected resources and conversations while avoiding extensive delays in the operation of an application program that initiated the commit procedure.

Regarding claims 9, 18 and 24, all the limitations of these claims have been noted in the rejection of claims 8, 17 and 23, respectively. In addition, Ohran/Britton discloses: further comprising the step of transferring a plurality of files simultaneously from the host device to the backup device (col. 3, lines 65 to col. 4, lines 14, Britton).

Regarding claim 11, all the limitations of this claim have been noted in the rejection of claim 8. in addition, Ohran/ Britton discloses: wherein the comparing step comprises the step of performing a rolling checksum (col. 52, lines 34-66, Britton).

Regarding claims 10 and 19, all the limitations of these claims have been noted in the rejection of claims 9 and 17, respectively. In addition, Ohran/Britton discloses: wherein the plurality of files are streamed according to an rsync command (col.49, lines 50-61, Britton).

4.   **Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schutzman et al. (US 6505216) (Schutzman) in view of Britton et al. (US 5555371) (Britton) and further in view of Nielsen (5812398).**

Regarding claim 5, all the limitations of this claim have been noted in the rejection of claim 1. However, Schutzman didn't disclose: wherein the transmitting step runs in cron. On the other hand, Nielsen discloses: wherein the transmitting step runs in cron (col. 7, line 14 to col. 8, lines 11, Nielsen). Thus, at the time invention was made, it would have been obvious to a person of ordinary skill in the art to include the transmitting step runs in cron in the combination system of Schutzman/Britton as taught by Nielsen. The motivation being to enable the user to maintain the system which indicates that the backup routine should be run at specified intervals.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in
this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP
§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37
CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE
MONTHS from the mailing date of this action. In the event a first reply is filed within
TWO MONTHS of the mailing date of this final action and the advisory action is not
mailed until after the end of the THREE-MONTH shortened statutory period, then the
shortened statutory period will expire on the date the advisory action is mailed, and any
extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of
the advisory action. In no event, however, will the statutory period for reply expire later
than SIX MONTHS from the date of this final action.

5.   *Contact Information*

Any inquiry concerning this communication or earlier communications from the examiner
should be directed to Cindy Nguyen whose telephone number is 703-305-4698. The examiner can
normally be reached on M-F: 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet
Metjahic can be reached on 703-308-1436. The fax phone numbers for the organization where this
application or proceeding is assigned are 703-746-7239 for regular communications and 703-746-7240
for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should

be directed to the receptionist whose telephone number is 703-305-3900.

Cindy Nguyen
November 17, 2005

FRANTZ COBY
PRIMARY EXAMINER